

IN THE SPECIFICATION

Please amend the paragraph beginning at page 2, line 27, of the current (Article 34 amended) specification as follows:

We have found that this object is achieved, according to the invention, by aqueous dispersions of water-soluble polymers of ethylenically unsaturated anionic monomers by free radical polymerization of the monomers in an aqueous medium in the presence of at least one stabilizer, if the polymerization is carried out in the presence of at least one water-soluble polymer from the group consisting of

(a) graft polymers of vinyl acetate and/or vinyl propionate on polyethylene glycols, polyethylene glycols blocked at one or both terminal groups with alkyl, carboxyl or amino groups, copolymers of alkyl polyalkylene glycol acrylates or alkyl polyalkylene glycol methacrylates and acrylic acid and/or methacrylic acid, polyalkylene glycols, polyalkylene glycols blocked at one or both terminal groups with alkyl, carboxyl or amino groups,
~~and at least one water-soluble polymer selected from~~

(b) hydrolyzed copolymers of vinyl alkyl ethers and maleic anhydride in the form of the free carboxyl groups and in the form of the salts at least partly neutralized with alkali metal hydroxides or ammonium bases, and/or of water-soluble starch from the group consisting of cationically modified potato starch, anionically modified potato starch, degraded potato starch and maltodextrin,
as a stabilizer.

Please amend the paragraph beginning at page 5, line 20, of the current (Article 34 amended) specification as follows:

Preferred stabilizers of group (a) are moreover copolymers of alkyl polyalkylene glycol acrylates or alkyl polyalkylene glycol methacrylates and acrylic acid and/or methacrylic acid. Such compounds are known, for example, as dispersants for cement. They are prepared by first esterifying adducts of ethylene oxide and/or propylene oxide with, for example, C₁- to C₁₈-alcohols with acrylic acid and/or methacrylic acid and then copolymerizing these esters with acrylic acid and/or methacrylic acid. The copolymers usually used contain, for example, from 5 to 60, preferably from 10 to 35, % by weight of polymerized units of alkyl polyalkylene glycol methacrylates and from 95 to 40, preferably

from 90 to 65, % by weight of polymerized units of (meth)acrylic acid. They generally have molar masses M_w of from 2000 to 50 000, preferably from 5000 to 20 000. These copolymers can be used in the form of the free acid groups or in completely or partly neutralized form in the preparation of the novel dispersions. The carboxyl groups of the copolymers are preferably neutralized with sodium hydroxide solution or ammonia.

Please insert the following at page 5, line 33, of the current (Article 34 amended) specification:

Further suitable water-soluble polymers (a) are polyalkylene glycols having molar masses M_n of from 100 to 100 000, preferably of from 300 to 80 000, particularly preferably of from 600 to 50 000 and in particular of from 1000 to 50 000, polyalkylene glycols blocked at one or both terminal groups with alkyl, carboxyl or amino groups and having molar masses M_n of from 100 to 100 000, preferably of from 300 to 80 000, particularly preferably of from 600 to 50 000 and in particular of from 1000 to 50 000. Water-soluble polymers are described, for example, in the above-cited WO-A-03/046024, page 4, line 37 to page 8, line 9. Preferred polyalkylene glycols are polyethylene glycol, polypropylene glycol and block copolymers of ethylene oxide and propylene oxide. The block copolymers may comprise ethylene oxide and propylene oxide in any desired amounts and incorporated in the form of polymerized units in any desired sequence. The terminal OH groups of the polyalkylene glycols can, if required, be blocked with a methyl group.

Please amend the paragraph beginning at page 6, line 36, of the current (Article 34 amended) specification as follows:

In a further preferred embodiment of the invention, the following combination of water-soluble polymers is used:

- (a) copolymers of alkyl polyalkylene glycol acrylates or alkyl polyalkylene glycol methacrylates and acrylic acid and/or methacrylic acid
and
- (b) at least one hydrolyzed copolymer of vinyl methyl ether and maleic anhydride in the form of the free carboxyl groups and in the form of the salts at least partly neutralized with sodium hydroxide solution, potassium hydroxide solution or ammonia.

Please insert the following at page 7, line 7, of the current (Article 34 amended) specification:

Further combinations of stabilizers for the preparation of the aqueous dispersions of anionic polymers are, for example, mixtures of

(a) polypropylene glycols, polyethylene glycols and/or block copolymers of ethylene oxide and propylene oxide having molecular weights M_n of from 300 to 50 000 and/or polypropylene glycols, polyethylene glycols and/or block copolymers of ethylene oxide and propylene oxide having a molecular weight M_n of from 300 to 50 000 and blocked at one or both terminal groups with C_1 - to C_4 -alkyl groups

and

(b) maltodextrin.

Please amend the paragraph beginning at page 7, line 8, of the current (Article 34 amended) specification as follows:

The present invention furthermore relates to a process for the preparation of aqueous dispersions of water-soluble polymers of ethylenically unsaturated anionic monomers by free radical polymerization of the monomers in an aqueous medium in the presence of at least one stabilizer, the polymerization being carried out in the presence of at least one water-soluble polymer from the groups consisting of

(a) graft polymers of vinyl acetate and/or vinyl propionate on polyethylene glycols, polyethylene glycols blocked at one or both terminal groups with alkyl, carboxyl or amino groups, copolymers of alkyl polyalkylene glycol acrylates or alkyl polyalkylene glycol methacrylates and acrylic acid and/or methacrylic acid, polyalkylene glycols, polyalkylene glycols blocked at one or both terminal groups with alkyl, carboxyl or amino groups,

and

(b) hydrolyzed copolymers of vinyl alkyl ethers and maleic anhydride in the form of the free carboxyl groups and in the form of the salts at least partly neutralized with alkali metal hydroxides or ammonium bases, and/or of water-soluble starch from the group consisting of cationically modified potato starch, anionically modified potato starch, degraded potato starch and maltodextrin,

as a stabilizer at a pH of from 1 to 12, preferably from 2 to 5.

Please insert the following at page 15, line 26, of the current (Article 34 amended) specification:

- Stabilizer 4: Polypropylene glycol having a molecular weight M_n of 600
- Stabilizer 5: Polypropylene glycol having a molecular weight M_n of 900
- Stabilizer 6: Polypropylene glycol blocked at one terminal group with a methyl group and having a molecular weight M_n of 1000
- Stabilizer 7: Block copolymer of polyalkylene glycols having a molecular weight M_n of 1000

Please insert the following at page 15, line 28, of the current (Article 34 amended) specification:

- Stabilizer 9: Polypropylene glycol terminated at one terminal group with a methyl group and having a molecular weight M_n of 2000

Please insert the following at page 16, line 35, of the current (Article 34 amended) specification:

Example 3

Example 2 was repeated with the exceptions that

12.0 g of stabilizer 4,

51.4 g of stabilizer 2 and

106.6 g of demineralized water

were initially taken in the polymerization apparatus and the use of triallylamine was dispensed with. An aqueous emulsion which had a viscosity of 2240 mPa.s at pH 4 was obtained.

Example 4

In the apparatus stated in example 1,

1.5 g of stabilizer 5,

16.5 g of stabilizer 4,

18.0 g of stabilizer 8 and

104.0 g of demineralized water

were initially taken, the mixture was stirred continuously at 300 rpm and 30 g of acrylic acid were then added continuously in the course of from 5 to 10 minutes.

Thereafter, the pH of the reaction mixture was brought from 4.5 to 3 by adding 30 g of 32% strength hydrochloric acid and the emulsion was heated to 50°C. After addition of 0.03 g of azo initiator VA-044, the emulsion was polymerized for 5 hours at 50°C, after which 0.05 g of azo initiator VA-044 was added and polymerization was continued for a further hour at 50°C. An aqueous dispersion having a viscosity of 208 mPa.s was obtained.

Please insert the following at page 19, line 29, of the current (Article 34 amended) specification:

Example 10

In the apparatus stated in example 1,

18.0 g of stabilizer 9,

18.0 g of stabilizer 8 and

90.0 g of demineralized water

were initially taken, the mixture was stirred continuously at 300 rpm while passing through nitrogen and 30 g of acrylic acid were added continuously in the course of from 5 to 10 minutes. The pH of the reaction mixture was then brought from 4.5 to 3 by adding 30 g of 32% strength hydrochloric acid and the emulsion was heated to 50°C. After addition of 0.03 g of azo initiator VA-044, the emulsion was polymerized for 5 hours at 50°C, after which 0.05 g of azo initiator VA-044 was added and polymerization was continued for a further hour at 50°C. An aqueous dispersion having a viscosity of 320 mPa.s was obtained.

Example 11

In the apparatus stated in example 1,
63.0 g of stabilizer 7,
9.0 g of stabilizer 8,
400 g of water and
45 g of acrylic acid
were initially taken and was stirred at a speed of 100 rpm while passing through
nitrogen. 0.45 g of sodium persulfate and 14.4 g of water were added to this solution
and initial polymerization was effected for 15 minutes at 25°C. 135 g of acrylic acid
and 27 g of stabilizer 8 were then added in the course of 2 hours at 25°C. At the same
time, 0.18 g of ascorbic acid was added in the course of 7 hours. Supplementary
polymerization was then effected for one hour. An aqueous dispersion having a
viscosity of 800 mPa.s and a pH of 1.5 was obtained. By adding water and sodium
hydroxide solution, a 2% strength dispersion having a pH of 7 was prepared. The
viscosity of the dispersion was 5000 mPa.s.